Flagstaff Sustainability Program

Fiscal Year 2009 - 2010



What does the Flagstaff Sustainability Program do?

The Flagstaff Sustainability Program promotes sustainable living and provides practical solutions through program and policy development for municipal operations and the Flagstaff community.

Initiated in 2007, the program focuses on developing and implementing community wide sustainability and climate management initiatives that make sense for Flagstaff's economy, community and environment. The program's guiding principles focus on policy and stewardship, community cooperation and awareness, and an appreciation of the interrelationship between the economy, environment and community.

The Flagstaff Sustainability Program works to foster interdepartmental efforts to integrate and promote sustainability in municipal operations. The program works with all City departments to integrate sustainability by initiating internal policy, providing research and best practices as they pertain to specific sectors and initiatives. The program works holistically throughout City operations to identify and provide resources that promote City and City Council goals.

Sustainability requires that our collective decisions as a City allow Flagstaff's economy and community members to continue to thrive without destroying the natural environment upon which we all depend.

Fiscal Year 2009-2010 Flagstaff Sustainability Program accomplishments

MUNICIPAL AND COMMUNITY SUSTAINABILITY

Annual Report on Sustainability

The 2009 City of Flagstaff Annual Report on Sustainability begins with an expanded Quality of Life section covering new efforts in community agriculture and community design, and ongoing efforts in community enrichment services and litter abatement. The

annual report also covers City projects and services in the areas of climate management, resource conservation, and waste prevention. The primary purpose of the Annual Report on Sustainability, now in its second year, is to showcase the significant role that the local government plays in community sustainability.

City of Flagstaff Municipal Sustainability Plan

The City of Flagstaff Municipal Sustainability Plan considers sustainability through four lenses:

- Waste Prevention Promotes the decrease of waste generation, improves material efficiency, and increases the reuse of products and materials in the waste stream.
- **Resource Conservation** Promotes the wise use of natural resources and decrease consumption rates of the community's limited resources.
- Climate Adaptation and Management Promotes effective and comprehensive solutions for addressing the changing climate.
- **Quality of Life** Promotes community potential that enhances Flagstaff's standard of living.

The municipal plan identifies goals, objectives, strategies and actions, and measurements of progress. Examples of initiatives include: sustainable purchasing, sustainable fleet, energy efficiency and renewable energy, anti-idling and paper use efficiency. The plan was developed in partnership with the Employee Advisory Committee, Sustainability Leadership Team, Sustainability Cabinet, Sustainability Commission, and Leadership Team. Implementation will begin in fiscal year 2010 – 2011.

Sustainable Business Guide

The Sustainable Business Guide was created to help local businesses become more sustainable. The guide book contains several specific actions that businesses can take to become more sustainable and highlights examples of steps that local businesses have already taken. The guide is planned to be part of an overall sustainable business initiative, which will involve collaborations with Coconino County Sustainable Economic Development Initiative and Northern Arizona University's Net Impact chapter. Implementation will begin in fiscal year 2010-2011.

Community Agriculture Project

In April 2010, the Flagstaff Sustainability Program took over management of the City's community agriculture project on Bonito Street. The program was charged with

expanding the project to incorporate additional locations on City property and partnering with a non-profit to manage agriculture sites. In collaboration with the City's Housing Section a second location was identified in the Sunnyside neighborhood on a section of property reserved for a future affordable housing initiative. Water infrastructure was made possible through funding from the Beautification and Public Arts Commission.

Urban Sustainability Directors Network

The Flagstaff Sustainability Program is a founding member of the Urban Sustainability Directors Network. The network enables public sector sustainability leaders to learn from each other and accelerate achievement of ambitious city sustainability goals. The Flagstaff Sustainability Program received funding from the network to participate in a professional development conference.

CLIMATE ADAPTATION AND MANAGEMENT

City of Flagstaff Municipal Greenhouse Gas Inventory

The Flagstaff Sustainability Program is responsible for tracking, calculating and producing the City's annual greenhouse gas inventory and report. The fiscal 2009-2010 inventory assesses greenhouse gas emission generated from the following municipal sectors: buildings, employee commute, streetlights, vehicle fleet, water production, waste, and wastewater treatment. The report identifies annual generated emissions, a comparison to previous inventories and projections for 2012. In addition, the report reviews unique operational and environmental factors that impact the City's emission generation and identifies targeted areas for emissions reduction.

RESIDENTIAL ENERGY EFFICIENCY

In fiscal year 2009-2010, combined Residential Energy Efficiency Programming is projected to result in approximately 3.58 million kilowatt hours (kWh) of energy saved in the Flagstaff community and 3.08 million metric tons of carbon dioxide equivalent emissions from being released into the atmosphere.

CFL Retrofit

In the fall of 2009, 500 compact fluorescent light bulbs (CFLs) were installed throughout the family units of Clark Homes, a low income housing development. The bulbs were supplied by APS through a grant awarded to the Flagstaff Sustainability Program. The CFLs replaced existing incandescent bulbs, saving over 4,900 kWh of

electricity and \$519 each month for the residents. Staff organized the retrofit and prepared CFL educational materials for the residents.

LED Holiday Light Swap

To help reduce energy consumption during the holiday season, the Flagstaff Sustainability Program partnered with HomCo ACE for a second year to provide energy efficient holiday lights at a discounted price to community members. Nearly 900 boxes of light emitting diode (LED) holiday lights were distributed to the community. As part of the swap more than 112,500 traditional inefficient holiday lights were "swapped out" for the more efficient lights. The estimated energy savings is more than 7,000 kWh per month, eliminating more than 5 metric tons of carbon dioxide emissions. The two-year old program is saving participating Flagstaff residents collectively over \$1,000 in electricity per month of use.

Residential Energy Efficiency Retrofits

The program secured \$587,100 in Federal American Recovery and Reinvestment Act funding to provide residential energy efficiency retrofits over three years. The retrofits will reduce energy and water consumption in the residential sector, create a local green collar workforce in the Flagstaff community, reduce greenhouse gas emission and save community members money. The retrofits are available to City residents that meet program eligibility requirements. A fee for service is based on household income; income is not an eligibility requirement. Retrofits began in April 2010; 46 were completed before the end of the fiscal year in June 2010. Participants are expected to experience a 10 to 20 percent improvement in the energy efficiency of their home.

Living Cities Foundation

The Flagstaff Sustainability Program has been awarded \$171,000 from the Living Cities Foundation to further current Residential Energy Efficiency Programming. Funds will assist in identifying innovative financing mechanisms for residential energy efficiency and renewable energy in the region. An emphasis will be placed on state and federal energy policy development, creating partnerships with regional utilities, and implementing regional and statewide outreach and market strategies. The program will partner with Coconino County. Implementation of the grant funds will begin in fiscal year 2010-2011.

MUNICIPAL ENERGY EFFICIENCY AND RENEWABLE ENERGY

Municipal Renewable Energy Audit

A comprehensive renewable energy audit was completed of City facilities and properties. The purpose of the audit is to provide City of Flagstaff decision makers a preliminary evaluation of the City's renewable energy potential and to initiate a long-term energy planning discussion. The audit makes recommendations for pursuance of solar photovoltaic (PV) systems as the first phase in expanding the City's renewable energy interests. The audit identifies and discusses renewable energy funding structures, PV energy potential and PV installation scenarios.

Energy Efficiency and Renewable Energy Resolution

In April 2010 the program brought forward an Energy Efficiency and Renewable Energy Resolution. Resolution 2010-16 commits the City of Flagstaff to:

- The development of long-term energy planning.
- Renewable energy projects will take long-term fiscal, environmental and societal benefit into consideration.
- Renewable energy projects and renewable energy purchasing combined will meet, at a minimum, 15 percent of the City's energy consumption by 2012, 20 percent by 2015, 35 percent by 2020, and 50 percent by 2050.
- Energy efficiency and renewable energy projects will promote community awareness.
- Follow the guidelines set forth by municipal sustainability policies that promote responsible use of City resources.
- Support efforts to promote energy efficiency and renewable energy in the Flagstaff community.
- Support efforts to identify state and local financing models for energy efficiency and renewable energy.

COMMUNITY EVENTS, OUTREACH AND EDUCATION

Solar and Wind Energy Tour

Coconino County's Sustainable Building Program, the Flagstaff Sustainability Program and Willow Bend Environmental Education Center partnered on the 2009 Solar and Wind Energy Tour. The event took place on Saturday, October 17th as part of the

Flagstaff Sustainability Program Year in Review: Fiscal Year 2009-2010
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Arizona Solar Energy Association and American Solar Energy Society's National Solar Tour. The 2009 tour included 100 community participants and featured 11 sites from Bellmont to Doney Park.

Flagstaff Earth Day 2010

Flagstaff Sustainability Program staff collaborated with the Sustainability Commission and Earth Day planning committee to organize Earth Day 2010, which was a great success. This year attracted over 1,800 community members and more than 80 exhibitors. Seventy-five volunteers participated in the community service project. Brad Lancaster's keynote presentation on rainwater harvesting and water management entertained nearly 120 people.

Sustainability Tips

Weekly sustainability tips are designed to provide community members with practical ideas and alternative solutions that promote more sustainable living. In fiscal year 2009-2010, sustainability tips were distributed weekly through the City Manager's weekly report, the sustainability list-serve (more than 100 members) and the Arizona Daily Sun.

Regional Network for Energy and Water Sustainability (ReNEWS)

The Flagstaff Sustainability Program developed the Regional Network for Energy and Water (ReNEWS), a partnership between the City of Flagstaff's Sustainability and Housing Programs, Northern Arizona Council of Governments, and Coconino County's Residential Energy Conservation and Housing Services Programs. The network's mission is to build northern Arizona's future through energy, water and housing efficiency.

How many people does the Flagstaff Sustainability Program employ?

The Flagstaff Sustainability Program was initiated in January 2007. In fiscal year 2009-2010 the program employed two permanent full time staff. The Sustainability Manager was hired in January 2007 and the Sustainability Specialist was hired in October 2008.

In fiscal year 2009-2010 a part-time temporary two-year position was created utilizing grant funding to assist with Residential Energy Efficiency Retrofit Programming. The Flagstaff Sustainability Program partners with local educational institutions and AmeriCorps to provide students with professional development opportunities. During this fiscal year, three Northern Arizona University AmeriCorps participants and interns worked with the program.

The Flagstaff Sustainability Program is one of four programs partially funded through a \$2.00 monthly Environmental Management Fee on City of Flagstaff utility bills. The remaining funding comes from the Environmental Services Enterprise Fund (e.g. landfill fees). Residential Energy Efficiency Retrofit Programming is grant funded through the American Recovery and Reinvestment Act of 2009 (\$587,100 over three years). In addition the program received funding from APS and Living Cities LLC to support Residential Energy Efficiency Programming, and the Urban Sustainability Directors Network and Institute for Sustainable Communities for professional conferences.

What is the Flagstaff Sustainability Program presently working on?

The Flagstaff Sustainability Program is actively identifying opportunities to obtain initiative funding. Currently staff is working on opportunities to secure Federal and State monies to continue and advance our existing programming. In addition, highlights of what program staff are also working on include: implementing the City Municipal Sustainability Plan, drafting a community wide Climate Adaptation and Management Plan, developing local economic stimulus efforts, assisting with the Zoning Code rewrite and the Regional Plan update, Solar Home Tour, developing municipal energy tracking protocol and standards, implementing the Sustainable Business Initiative, identifying options for a Renewable Energy and Energy Efficiency Permit Fee Credit Incentive, employee commute survey, World Carfree Day, developing a Sustainable Purchasing Manual for City employees, local and regional partnerships and much more.

What are the Flagstaff Sustainability Program's fiscal year 2010-2011 goals?

- 1. Implement the City of Flagstaff Municipal Sustainability Plan.
- 2. Increase energy efficiency in the residential sector utilizing American Reinvestment and Recovery funding.
- 3. Implement Sustainable Business Initiative.
- 4. Develop solar photovoltaic renewable energy systems on City facilities and properties.

- 5. Develop a web-based regional resource center for energy efficiency and renewable energy programs, loans, incentives, and rebates.
- 6. Reduce greenhouse gas emissions in the residential sector utilizing American Reinvestment and Recovery funding.
- 7. Complete biennial Flagstaff Community Greenhouse Gas inventory.
- 8. Develop a Sustainable Fleet Manual for City employees that provide vehicle safety, fleet policies and procedures, and operating and maintenance guidelines to improve fleet sustainability.
- 9. Update Flagstaff Sustainability Program's existing strategic plan.
- 10. Identify additional resources to the Flagstaff community to promote energy independence and the integration of sustainability in every day decision making.

What are the Flagstaff Sustainability Program's fiscal year 2010-2011 objectives?

- 1. Adhere to sustainability guiding principles.
- 2. Identify innovative strategies to engage the Flagstaff community and encourage awareness, responsibility, education and participation.
- 3. Provide accountable and accurate sustainability and climate management resources.
- 4. Improve public awareness, trust and accurate understanding of the Flagstaff Sustainability Program's mission and vision.
- 5. Incorporate accountability, accessibility and transparency in all Flagstaff Sustainability Program initiatives.
- 6. Adhere to the goals and strategies of the US Mayors Climate Protection Agreement Resolution 2006-50 and the Energy Efficiency and Renewable Energy Resolution 2010-16.
- 7. Increase cross sector partnerships to build a more sustainable Flagstaff.
- 8. Increase recognition for the Flagstaff Sustainability Program's mission, goals and accomplishments.
- 9. Increase renewable energy opportunities for the municipality organization.
- 10. Work with all City Departments to incorporate sustainability and climate management in all policies, procedures and programs.

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What is the Flagstaff Sustainability Program's fiscal year 2010-2011 budget?

The Flagstaff City Council approved the program's fiscal year 2010-2011 budget of \$50,475 for contractual and commodities.

How can I contact the Flagstaff Sustainability Program?

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